QUANTITATIVE METHODS, MPHILED

The M.Phil.Ed. in Quantitative Methods is designed for professionals who have already earned a relevant master's degree and wish to advance their mastery of scale development and assessment, design of randomized field trials and quasi-experiments, multivariate statistical analysis as applied in education, surveys, and the production of high-quality evidence for decision-making in public and organizational policy. In addition to developing expertise in advanced methods of research, students are required to take distribution courses in fields such as early childhood, reading, science education, education in developed and developing countries, dropout and risk prevention, etc. The curriculum integrates research methods with policy content. Research experience is an integral part of the curriculum. Graduates are prepared to design, apply and interpret measures of attitude, behavior, and other social science, education and related phenomena; to validate, scale and equate such measures; to plan and conduct controlled field experiments; to apply and interpret advanced univariate and multivariate statistics; to evaluate programs and policies through quantitative studies; and to disseminate and interpret results for understanding and policy development.

For more information: https://www.gse.upenn.edu/academics/programs/quantitative-methods-masters (https://www.gse.upenn.edu/academics/programs/quantitative-methods-masters/)

Curriculum

A total of 16 course units are required for the M.Phil.Ed. in Quantitative Methods.

Code	Title	Course Units
Required Courses [1]		
EDUC 6625	Data Processing and Analysis (Fall)	1
EDUC 6680	Evaluation of Policies, Programs and Projects	1
EDUC 6683	Survey Methods & Design (Spring)	1
EDUC 6684	Measurement & Assessment (Fall)	1
EDUC 7667	Regression and Analysis of Variance (Fall or Spring)	1
EDUC 7668	Measurement Theory and Test Construction (Spring)	1
EDUC 7671	Factor Analysis and Scale Development (Fall)	1
EDUC 7677	Structural Equations Modeling (Spring)	1
EDUC 8629	Policy Research (Spring)	1
EDUC 8671	Randomized Trials and Experiments (Spring)	1
EDUC 8680	Complex, Multilevel, and Longitudinal Research Models (Fall)	1
EDUC 8681	Classifications, Profiles, and Latent Growth Mixture Models (Spring)	1
Distribution Requirement		
Select 1 Distribution Requirement course [2]		1
Electives		
Select 3 electives [3]		3
Total Course Units		**16**

[1] The student must also earn a grade of "B" or better.
[2] To meet the distribution requirement, students must complete one approved graduate level (5000 or above) GSE course outside the student's area of specialization, earning a grade of "B" or better.
[3] Students are required to take three elective courses at the 5000 level or above. These courses can be taken at other Penn schools with permission from the advisor and the school in question. The student must also earn a grade of "B" or better.

Comprehensive Examination

Master's degree candidates must demonstrate thorough knowledge of the field of specialization by passing a general examination in their area of study. The general examination serves an educational and evaluative purpose through which students are expected to review and integrate what they have learned in their coursework and fieldwork.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2025 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.